

The SoilChek inter-laboratory comparison programme is delivered in partnership with the Australasian Soil and Plant Analysis Council (ASPAC). SoilChek supports ASPAC's objectives to promote excellence in all aspects of soil analysis, and to encourage and promote the adoption of preferred methods and protocols used in soil analysis throughout Australasia.



#### PROGRAMME OBJECTIVE

SoilChek is designed to enable valid comparisons between results from laboratories which test soils for agronomic and other purposes.

Participating laboratories use a range of methods, and may aim to achieve quite different levels of performance in terms of detection limits, or precision and accuracy of measurement. Informed interpretation of the results is important to determine whether differences are significant, whether corrective action is necessary and what corrective action is appropriate.

#### BENEFITS OF PARTICIPATING IN SOILCHEK

##### ➤ Confidence in Results

- Measurement of performance in comparison with other laboratories provides confidence that:
  - Precision and accuracy of test results are within scheme limits
  - Results from another laboratory (or group of laboratories) are likely to be within scheme limits
  - Methods are aligned with preferred methods published in Rayment & Lyons (2011)\*

##### ➤ Credibility

- Performance can be demonstrated to:
  - Customers
  - Regulatory authorities
  - Accreditation agencies

##### ➤ Compliance with

- Laboratory standards (e.g. ISO 17025)
- ASPAC certification

##### ➤ Training

- Test performance from individual analysts can be monitored and reported over time

#### PROGRAMME FEATURES

- Comprehensive range of sample types and tests
- Participation by many accredited laboratories gives high quality, robust data sets with low variation
- High quality cost-effective reference materials
- Technical direction from ASPAC Technical Advisory Group ensuring relevance to current laboratory and industry needs
- Proven statistical format and sample quality
- Individual reports per round for each test, and annual reports for overall method performance monitoring

#### ACCREDITATION

- Global Proficiency is accredited to ISO/IEC 17043:2010 Conformity Assessment - General Requirements for Proficiency Testing; our scope includes the SoilChek programme.
- Global Proficiency is also accredited to ISO 17034: General requirements for the competence of Reference Material Producers. For information on the range of Reference Materials offered, please visit our website.

#### SAMPLE TYPES

The soils are agricultural soils sourced primarily from Australia and New Zealand. Soils from other regions are used periodically as an external reference.

#### AVAILABLE TESTS

##### Standard Soils

*Soil methods are referenced to Rayment & Lyons (2011) Soil Chemical Methods – Australasia*

- |                                  |                       |
|----------------------------------|-----------------------|
| • Air Dry Moisture Content       | • Phosphorus          |
| • Electrical Conductivity        | • Sulfur              |
| • Soil pH                        | • Calcium Chloride    |
| • Soluble Chloride               | • Extractables        |
| • Organic Carbon                 | • Exchangeables       |
| • Nitrogen                       | • Aqua Regia Elements |
| • Mehlich 3 Extractable Elements |                       |

##### Acid Sulphate Soils

- |                                     |             |
|-------------------------------------|-------------|
| • Chromium Reducible Sulphur        | • Sulphur   |
| • Acid Neutralising Capacity        | • Calcium   |
| • Titratable Peroxide Acidity (TPA) | • Magnesium |
| • Titratable Actual Acidity (TAA)   | • pH        |

FOR MORE INFORMATION PLEASE VISIT OUR WEBSITE  
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